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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 10/782,772 | 02/23/2004 | Seuk-Jin Yun | 1349.1349 | 7641 |

21171 7590 09/09/2005

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EXAMINER

MORRISON, THOMAS A

ART UNIT PAPER NUMBER

3653

DATE MAILED: 09/09/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/782,772

Applicant(s)

YUN ET AL.

Examiner

Thomas A. Morrison

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 June 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-31 is/are pending in the application.
- 4a) Of the above claim(s) 1-10, 16-18, 24, 25 and 29-31 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-15, 19-23 and 26-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of claims 11-15, 19-23 and 26-28 of Group I in the reply filed on June 27, 2005 is acknowledged.

Claim Objections

2. Claim 11 is objected to because of the following informalities: (1) "change structure of the friction member" should be -- change a structure of the friction member -
-. Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 11-15, 21, 23 and 26-28 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 11 recites the limitation "the paper feeding section" in line 15. There is insufficient antecedent basis for this limitation in the claim.

Claim 12 recites the limitation "the paper feeding section" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Also, claims 14-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. More specifically, MPEP, section 2173.05(p)

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states, "A single claim which claims both an apparatus and the method steps of using the apparatus is indefinite under 35 U.S.C. 112, second paragraph." Id. Claim 14 recites that the printing **apparatus** further **comprises** a carriage...a contract member... wherein the **operation of supplying the driving force comprises**: positioning the carriage... Since claim 14 claims both an apparatus and the method steps of using the apparatus, this claim is indefinite.

Similarly, claim 15 recites that the printing **apparatus** further **comprises** a link arm...wherein the **operation of moving the at least one friction member in the second direction comprises**: contacting the link arm... Since claim 15 claims both an apparatus and the method steps of using the apparatus, this claim is indefinite.

Claim 21 recites the limitation "the paper feeding section" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Claim 21 recites the limitation "the main body" in line 4. There is insufficient antecedent basis for this limitation in the claim.

Regarding claim 23, it is unclear if the recited "a structure of the friction member" is the same or different from the previously recited "a structure of a friction member" in claim 19.

Regarding claim 26, it is unclear which direction (first direction or second direction) the friction member is moved when the paper is determined to be a first type of paper. Also, it is unclear which direction the friction member is moved when the paper is determined to be a second type of paper.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

4. Claims 14-15 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In particular, claims 14-15 are directed to neither a "process" nor a "machine," but rather embrace or overlap two different statutory classes of invention set forth in 35 U.S.C. 101 which is drafted so as to set forth the statutory classes of invention in the alternative only. See, MPEP, section 2173.05(p). Specifically, claims 14-15 recite both a process and a machine.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(f) he did not himself invent the subject matter sought to be patented.

5. Claims 11-12, 19-21 and 23 are rejected under 35 U.S.C. 102(f) as being anticipated by U.S. Patent Publication No. 2003/0132570 (Park).

Regarding claim 11, Figs. 3-6 and numbered paragraphs [0003] and [0038] – [0045] disclose a method to pick up a paper (P1 or P2) in a printing apparatus having a main body, at least one friction member installed to the main body to change structure

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of the friction member to form an angle in relation to a leading edge of a sheet of paper picked up from a paper feeding unit and elastically biased in a first direction; a cam unit movably installed to the main body to forcibly move the at least one friction member to a second direction while the cam unit is being moved by driving force; and a driving force supply unit movably installed to the main body to supply driving force to the cam unit at the time of being moved, the method including

supplying a signal indicative of a type of the sheet of paper to be picked up (see, e.g., numbered paragraph [0038]);

classifying the paper to a first type (P2) having a thickness within a predetermined range or a second type (P1) thicker than the first type (P2) of paper based on the signal (see, e.g., the numbered paragraphs [0038] and [0045]);

supplying a driving force to the cam unit (251) when the paper (P1 or P2) is classified as the first type of paper (P2);

moving the at least one friction member (including 225) to the second direction by driving the cam unit (251); and

picking up the paper from the paper feeding section (Fig. 5) when the at least one friction member (225) has been moved in the second direction.

Regarding claim 12, the numbered paragraphs [0003] and [0038] disclose that the operation of supplying the signal comprises: supplying a detection signal from a

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detection sensor that detects the type of paper loaded in the paper feeding section provided to the main body.

Regarding claim 19, Figs. 3-6 and numbered paragraphs [0003] and [0038]-[0045] disclose a method to pick up a plurality of papers (P1 or P2) in a printing apparatus, including

classifying the plurality of papers (P1 or P2) to a first type (P2) having a thickness within a predetermined range or a second type (P1) thicker than the first type (P2); and

dynamically changing a structure of a friction member (including 225) based on the classification so that each of the plurality of papers (P1 or P2) are separately picked up.

Regarding claim 20, the numbered paragraphs [0003] and [0038]-[0045] disclose a method to pick up paper in a printing apparatus, including

supplying a signal indicative of types of the paper to be picked up (see, e.g., numbered paragraph [0038]);

classifying the paper to a first type (P2) having a thickness within a predetermined range or a second type (P1) thicker than the first type (P2) based on the signal (see, e.g., numbered paragraph [0038]);

moving a friction member (including 225) upon classifying the paper as the first type (P2) or the second type (P1); and

picking up the paper (P1 or P2) when the friction member (including 225) has been moved based on the classification.

Regarding claim 21, the numbered paragraphs [0003] and [0038] disclose that the operation of supplying the signal comprises: supplying a detection signal via a detection sensor that detects the types of paper loaded in the paper feeding section provided to the main body.

Regarding claim 23, Figs. 3-6 and numbered paragraphs [0003] and [0038]-[0045] disclose that a structure of the friction member (including 225) allows a predetermined frictional force to be applied to a leading edge of the paper (P1 or P2).

6. Claims 11-12, 19-21 and 23 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2003/0132570 (Park).

The applied reference has a common assignee with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 102(e) might be overcome either by a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not the invention "by another," or by an appropriate showing under 37 CFR 1.131. In particular, this reference discloses all of the limitations of claims 11-12, 19-21 and 23.

Note: the comparison between the elements of claims 11-12, 19-21 and 23, and the elements of U.S. Patent Publication No. 2003/0132570 (Park) is the same as the comparison outlined above in the rejection under 35 U.S.C. 102(f).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 13 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Publication No. 2003/0132570 (Park) as applied to claims 11 and 20 above, and further in view of U.S. Patent No. 6,002,891 (Shin). The Park publication discloses a paper handling apparatus with a controller that receives a signal indicative of a paper type (e.g., thick paper or thin paper) from a detector and then outputs a signal to control the paper handling apparatus, but Park does not specifically state that the controller supplies a signal from a memory with stored information in relation to types of paper. See, e.g., the numbered paragraph [0038] of the Park publication.

The Shin patent discloses that it is well known to provide paper handling apparatus with a controller that receives a signal indicative of a paper type (e.g., thick paper or thin paper) from a sensor (500), and then compares the received signal to a look-up table with information related to paper type, in order to automatically output a signal that properly corresponds with the detected paper type, for operating the paper handling device of Shin. See, e.g., Figs. 3-4 and column 4, lines 14-28 of Shin. Providing the advantageous control method of Shin, which automatically outputs a signal that properly corresponds with the detected paper type, in the environment of the


Park apparatus, will result in the controller of Park automatically outputting a control signal that properly corresponds with the detected paper type, from a memory with stored information in relation to the types of paper (i.e., the look-up table in the controller). Accordingly, all of the limitations of claims 13 and 22 are met.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thomas A. Morrison whose telephone number is (571) 272-7221. The examiner can normally be reached on M-F, 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Donald Walsh can be reached on (571) 272-6944. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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